

CONSTRUCTION PLANS FOR

# GOOSE CREEK SEWER PUMP STATION

FOR THE

## CITY OF HUNTSVILLE

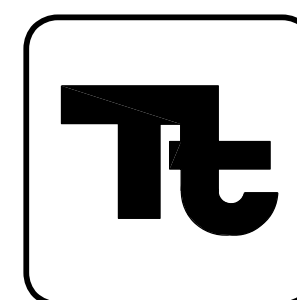
### DEPARTMENT OF WATER POLLUTION CONTROL

### CITY PROJECT NO. 65-\_\_\_\_\_

HUNTSVILLE, ALABAMA  
November 2013



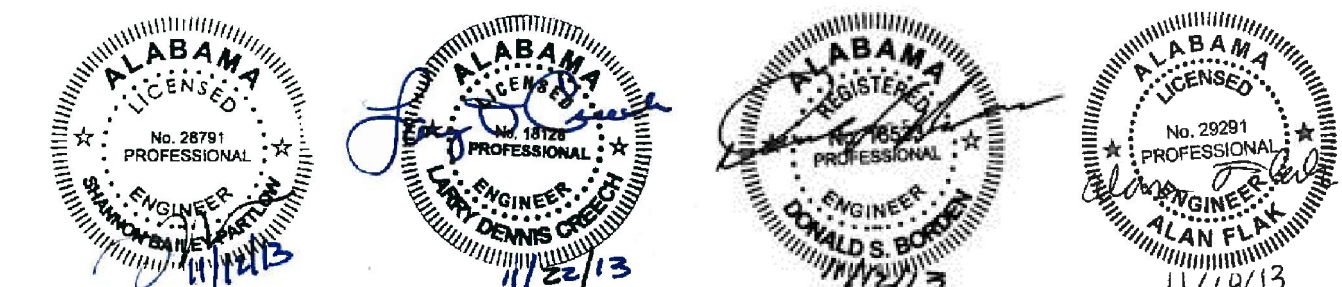
HUNTSVILLE  
The Star of Alabama



**TETRA TECH, INC.**

101 Quality Circle Huntsville, AL 35806 (256) 424-4077

TETRA TECH PROJECT NO. 07-106





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GENERAL NOTES

1.

THE INTENT OF THE DRAWINGS IS THAT THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND TRANSPORTATION NECESSARY FOR THE PROPER EXECUTION OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ALL INCIDENTAL WORK NECESSARY TO COMPLETE THE PROJECT IN AN ACCEPTABLE MANNER, READY FOR USE, OCCUPANCY, OR OPERATION BY THE OWNER.

2.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO WORK ALL APPLICABLE DRAWINGS AND THE APPROPRIATE SPECIFICATIONS AS A UNIT. ANY OMISSIONS, DELETIONS, OR CONFLICTS ARISING AS A RESULT OF FAILURE TO INCORPORATE ALL DRAWINGS AND SPECIFICATIONS WHICH APPLY SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER AND/OR ENGINEER.

3.

EFFORTS HAVE BEEN MADE TO INDICATE LOCATIONS OF EXISTING STRUCTURES, PIPING, UTILITIES AND TOPOGRAPHY. HOWEVER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING EXACT SIZES AND LOCATIONS OF ALL EXISTING ITEMS BEFORE INITIATING ANY CONSTRUCTION OPERATIONS. ANY EXISTING STRUCTURE, PIPING, OR UTILITY DISTURBED OR DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION OPERATIONS SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER AND/OR ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION ACTIVITIES WITH THE OWNER OF ANY FACILITY DISTURBED OR PLANNED TO BE DISTURBED.

4.

THE CONTRACTOR SHALL COORDINATE IN ADVANCE AND DURING CONSTRUCTION OPERATIONS WITH THE OWNER OF ANY FIBER OPTIC COMMUNICATION CABLES IN THE AREAS WHERE THESE UTILITIES EXIST.

5.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL LINES AND GRADES REQUIRED FOR THE CONSTRUCTION OF THE SEWER LINES. HORIZONTAL AND VERTICAL CONTROL POINTS AND TEMPORARY BENCHMARKS HAVE BEEN PROVIDED BY THE ENGINEER AND ARE SHOWN ON THESE DRAWINGS.

6.

THE CONTRACTOR SHALL VERIFY ALL HORIZONTAL AND VERTICAL BENCHMARKS SHOWN. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY CONFLICTS.

7.

THE CONTRACTOR SHALL VERIFY COORDINATES AND ELEVATIONS OF ALL EXISTING STRUCTURES SHOWN ON THESE PLANS. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY CONFLICTS.

8.

DIMENSIONS OF EXISTING STRUCTURES AND/OR SIZE RESTRICTIONS ARE APPROXIMATE. ALL NECESSARY DIMENSIONS AND ELEVATIONS OF EXISTING STRUCTURES AND TOPOGRAPHY SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD PRIOR TO CONSTRUCTION OPERATIONS.

9.

THE LIMITS OF CONSTRUCTION SHALL BE THE PROPERTY, RIGHT-OF-WAY, OR EASEMENT LINES AS SHOWN ON THE PLANS. ANY ADDITIONAL EASEMENTS REQUIRED FOR CONSTRUCTION SHALL BE ACQUIRED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER AND/OR ENGINEER.

10.

EXISTING GRADING AND DRAINAGE ELEVATIONS AND ALL EXISTING CONDITIONS SHALL BE MAINTAINED AFTER ALL APPLICABLE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF HUNTSVILLE ENGINEERING DEPARTMENT'S "DESIGN AND ACCEPTANCE MANUAL FOR SANITARY SEWERS", LATEST EDITION.

11.

ALL APPLICABLE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF HUNTSVILLE ENGINEERING DEPARTMENT'S "DESIGN AND ACCEPTANCE MANUAL FOR WASTEWATER PUMP STATIONS", LATEST EDITION.

12.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE NPDES STORMWATER PERMITS DURING THE ENTIRE CONSTRUCTION PERIOD. A COPY OF ALL APPLICABLE PERMITS SHALL BE MAINTAINED ON SITE AT ALL TIMES.

13.

THE CONTRACTOR SHALL MAINATAIN COPY OF ALDOT APPROVED SPECS. AND PERMIT ON SITE THROUGHOUT CONSTRUCTION.

14.

THE CONTRACTOR SHALL PROVIDE THE CITY ENGINEER WITH A COMPLETE SET OF RECORD DRAWINGS (AS-BUILTS) IN DIGITAL MICROSTATION (.DGN) AND HARDCOPY FORMAT, AND THE CONTRACTOR/INSPECTOR RED-LINED DRAWINGS UPON COMPLETION OF CONSTRUCTION. DRAWINGS SHALL BE REFERENCED TO THE ALABAMA STATE PLANE COORDINATE SYSTEM, NAD83 ALABAMA, AS DESCRIBED IN THE APPLICABLE SECTION OF THE "CODE OF ALABAMA" (1975). SURVEYS SHALL BE TIED TO A MINIMUM OF TWO ACCEPTED GPS MONUMENTS OR ONE GPS TIE POINT PLUS AN ASTRONOMIC OBSERVATION TO DETERMINE GRID NORTH. THE SURVEY SHALL BE COMPLETED BY A LICENSED SURVEYOR LICENSED IN THE STATE OF ALABAMA. IN ADDITION, THE RECORD DRAWINGS SHALL SHOW FINAL VERTICAL AND HORIZONTAL ALIGNMENT OF ALL BURIED UTILITIES ADDED OR MOVED AS A RESULT OF CONSTRUCTION. THEY SHALL INCLUDE ALL LINES, ACTUAL FIELD ANGLES BETWEEN LINES, SERVICE LINES AND TEE LOCATIONS, VALVE VAULTS AND VALVE BOXES, AND STUBOUTS. THEY SHALL REFLECT ALL ALIGNMENT AND GRADE CHANGES FROM THE DESIGN DRAWINGS MADE DURING CONSTRUCTION. RECORD DRAWINGS MUST BE COMPLETED AND SUBMITTED PRIOR TO ACCEPTANCE OF THE SEWERS INTO THE PUBLIC SYSTEM AND ANY CONNECTIONS BEING MADE THERETO.

15.

THE CONTRACTOR SHALL BE TOTALLY RESPONSIBLE FOR TVI, VACUUM TESTING MANHOLES, AND AIR TESTING SEWER LINES. A 72-HOUR NOTICE IS REQUIRED PRIOR TO ALL TESTING PROCEDURES. REPRESENTATIVES FROM BOTH THE CITY ENGINEERING OFFICE AND WATER POLLUTION CONTROL SHALL BE PRESENT TO VERIFY TESTING RESULTS.

16.

TRAFFIC CONTROL SHALL BE MAINTAINED IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.

17.

ALL CONCRETE AND ASPHALT DRIVEWAYS AND OTHER ROAD ACCESSSES SHALL BE SAWCUT AND REPAIRED IN AS GOOD OR BETTER CONDITION AS BEFORE CONSTRUCTION. PROPERTY OWNERS SHALL HAVE ACCESS TO PROPERTY AT ALL TIMES DURING CONSTRUCTION.

18.

THE CONTRACTOR SHALL MAINTAIN A 15' MINIMUM EXCAVATION CLEARANCE AT ALL TRANSMISSION LINE TOWER SUPPORTS AND DOWN GUY ANCHORS.

19.

MAILBOXES MAY BE REMOVED FOR CONSTRUCTION PURPOSES ONLY. MAILBOXES SHALL BE REINSTALLED IN THEIR ORIGINAL POSITIONS AND IN AS GOOD OR BETTER CONDITION THAN PRIOR TO CONSTRUCTION. IF MAILBOXES ARE TO BE REMOVED FOR CONSTRUCTION PURPOSES, THE MAILBOXES SHALL BE REPLACED BEFORE THE END OF THE WORKING DAY.

20.

FENCING MAY BE REMOVED FOR CONSTRUCTION PURPOSES ONLY. FENCES SHALL BE REINSTALLED IN THEIR ORIGINAL POSITIONS AND IN AS GOOD OR BETTER CONDITION THAN PRIOR TO CONSTRUCTION.

21.

IF THE REQUIRED DISTANCE TO USE RESTRAINED JOINT PIPING FALLS BETWEEN TWO JOINTS, THE CONTRACTOR SHALL TO USE RESTRAINED JOINT PIPING ON THE NEXT JOINT GREATER THAN THE DISTANCE SPECIFIED.

22.

ALL BURIED PIPES SHALL HAVE A MINIMUM OF 3'-0" COVER AS MEASURED VERTICALLY FROM FINISHED GRADE TO THE TOP OF PIPE, UNLESS OTHERWISE NOTED.

23.

SERVICE LATERALS AND STUBOUTS SHALL BE EXTENDED TO PROPERTY OR EASEMENT LINES AS SHOWN ON PLANS.

24.

THE CONTRACTOR SHALL SUPPLY AND INSTALL CLEANOUTS, SERVICE CONNECTIONS, AND FLEX CONNECTIONS IN MANHOLES AT ELEVATIONS AND DEFLECTIONS AS NOTED ON PLANS FOR ALL SERVICE LATERALS SHOWN.

25.

ENTIRE FORCEMAIN MUST PASS ALL TESTS PRIOR TO CONNECTION TO EITHER END.

26.

BEST MANAGEMENT PRACTICES AND SEDIMENT AND EROSION CONTROL METHODS SHALL BE MAINTAINED THROUGHOUT PROJECT. THE SEDIMENT AND EROSION CONTROL METHODS SHOWN ON THESE PLANS ARE MEANT TO BE A GUIDE AND ARE ONLY MINIMUM REQUIREMENTS. THE OWNER MAY REQUIRE ADDITIONAL SEDIMENT AND EROSION CONTROL DURING THE CONSTRUCTION PERIOD IF NECESSARY. ALL SEDIMENT AND EROSION CONTROL METHODS SHALL BE INSTALLED AND MAINTAINED ACCORDING TO THESE DRAWINGS, THE TECHNICAL SPECIFICATIONS, AND THE NPDES PERMIT.

27.

THE CONTRACTOR SHALL INSTALL SILT FENCE ALONG THE DOWNHILL SIDE OF ALL DISTURBED AREAS AND TAKE ALL NECESSARY EFFORTS TO MINIMIZE SEDIMENTATION AT ALL CREEK CROSSINGS.

28.

SEED, FERTILIZE, AND MULCH ALL AREAS DISTURBED DURING CONSTRUCTION. VEGETATIVE COVER SHALL BE RE-ESTABLISHED AS SOON AS POSSIBLE AFTER LAND DISTURBANCE.

29.

TOPSOIL IN AREAS OF EXCAVATION SHALL BE STRIPPED AND SEPARATELY STOCKPILED ON SITE FOR FINISH LANDSCAPING AND/OR GRADING USE ONLY.

30.

A SUBSURFACE INVESTIGATION FOR THIS PROJECT WAS CONDUCTED BY OMI, INC. OF HUNTSVILLE, AL. A COPY OF THE REPORT IS ATTACHED AS AN APPENDIX TO THE SPECIFICATIONS. THE BORING RESULTS AND CONCLUSIONS PRESENTED IN THE REPORT REPRESENT THE WORK OF OMI, INC. AS AN INDEPENDENT CONTRACTOR. THIS REPORT IS PROVIDED FOR INFORMATION ONLY AND SHALL NOT BE CONSTRUED IN ANY FASHION AS HAVING BEEN APPROVED BY THE CITY OF HUNTSVILLE OR TETRA TECH, INC. ALL EXCAVATION WORK SHALL BE UNCLASSIFIED AND ANY FINDINGS SHOWN BY THE GEOTECHNICAL REPORT SHALL NOT BE USED TO CLASSIFY EXCAVATION WORK. CONSTRUCTION UNLESS OTHERWISE SHOWN ON PLANS.

31.

THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING ALL APPLICABLE OSHA REGULATIONS.

ABBREVIATIONS

BM

BENCH MARK

CL

CENTERLINE

CO

CLEANOUT

CONC

CONCRETE

CMP

CORRUGATED METAL PIPE

DB

DEED BOOK

DEC

DEGREE

DIP

DUCTILE IRON PIPE

EL/ELEV

ELEVATION

EX/EXIST

EXISTING

FOC

FIBER OPTIC CABLE

FLG

FLANGE

FM

FORCEMAIN

G

GAS LINE

GUY

GUY WIRE

INFL

INFLUENT

INV

INVERT

LP

LIGHT POLE

MH

MANHOLE

MJ

MECHANICAL JOINT

NIC

NOT IN CONTRACT

OD

OUTSIDE DIAMETER

OHE

OVERHEAD ELECTRIC

PG

PAGE

R

PROPERTY LINE

PP

POWER POLE

RCP

REINFORCED CONCRETE PIPE

RJ

RESTRAINED JOINT

R/W

RIGHT OF WAY

STM

STORM SEWER

SHT

SHEET

SAN

SANITARY SEWER

TBM

TEMPORARY BENCH MARK

TP

TELEPHONE POLE

TYP

TYPICAL

UGT

UNDERGROUND TELEPHONE LINE

UNO

UNLESS NOTED OTHERWISE

W

WATER LINE

LEGEND

MANHOLE

SEWER LINE

SEWER FORCEMAIN

EASEMENT LINE

EX. MANHOLE

EX. UTILITY

EX. FENCE

EX. EDGE OF GRAVEL/ASPHALT

EX. EASEMENT LINE

EX. PROPERTY LINE

HAY BALES

SILT FENCE

EX. VEGETATION LINE

WILDLIFE REFUGE LINE

EX. STRUCTURE

EX. UTILITY POLE

EX. UTILITY POLE WITH GUY WIRE

EX. CONCRETE MONUMENT FOUND

EX. IRON PIN FOUND

TEMPORARY BENCH MARK

BORE HOLE

NORTH ARROW

SURVEY CONTROL POINT

ZONE X-F

FLOOD ZONE

ZONE AE-FF

Client: CITY OF HUNTSVILLE

Proj. Loc.: HUNTSVILLE, ALABAMA

GOOSE CREEK PUMP STATION

GENERAL NOTES

ABBREVIATIONS AND LEGEND

Project No.: 07106

Designed By: AOT

Drawn By: SDG

Checked By: MDS

G-2

TETRA TECH

www.tetratech.com

101 CHURCH STREET, SUITE 201

HUNTSVILLE, ALABAMA 35801

TEL.: 256-551-0222

BY

DATE

DESCRIPTION

MARK

ABAMA

REGISTERED

PROFESSIONAL


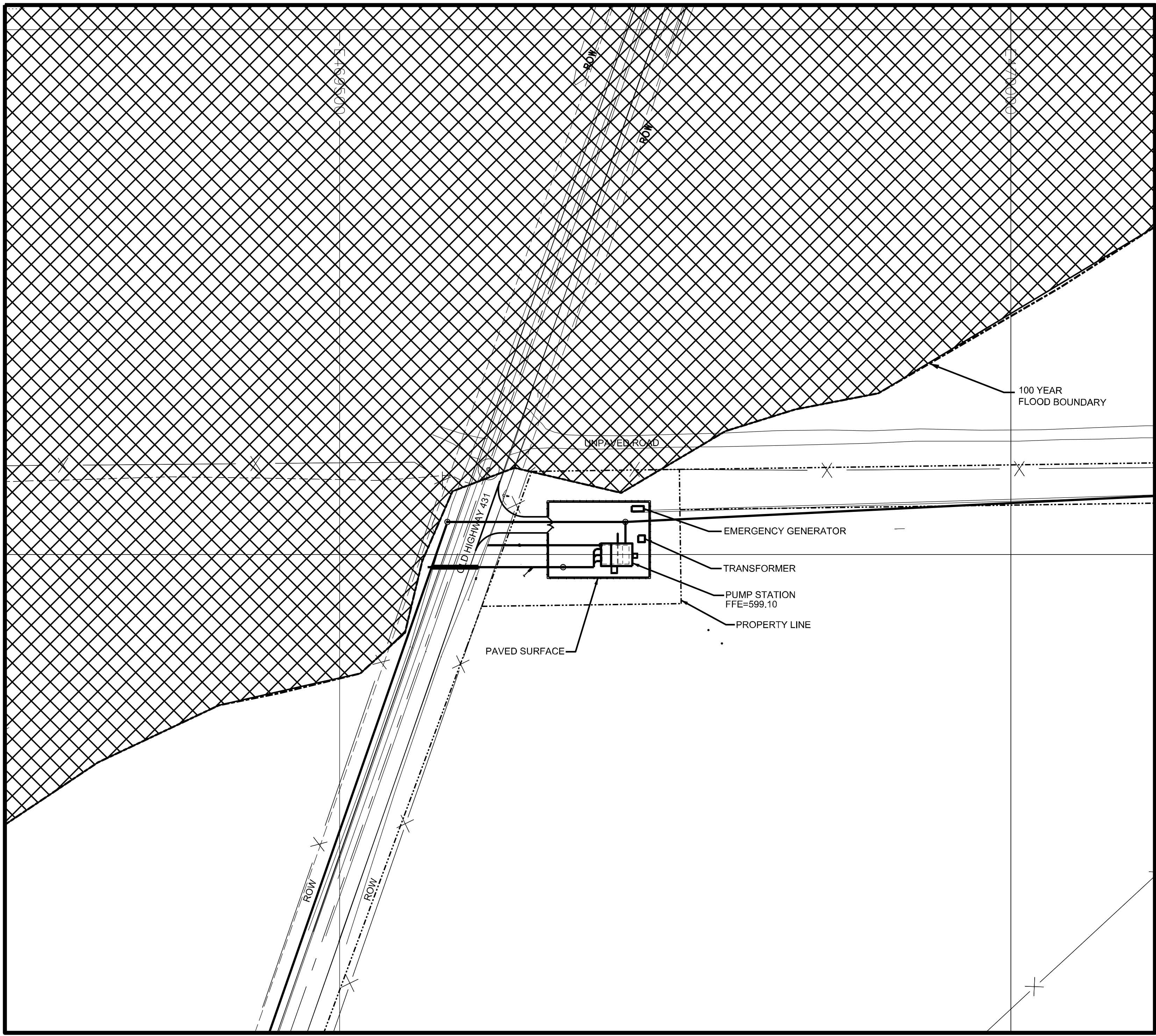
ENGINEER

SHARON L. HARRIS

10000

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1. EFFECTIVE 100-YEAR FLOODPLAIN BOUNDARY (DIGITIZED FROM FEDERAL EMERGENCY MANAGEMENT AGENCY-FEMA NATIONAL FLOOD INSURANCE PROGRAM-NFIP FLOOD INSURANCE RATE MAP(S)-FIRM) OBTAINED FROM CITY OF HUNTSVILLE PLANNING DEPARTMENT/GEOGRAPHIC INFORMATION SYSTEM (GIS) GROUP ON 06/27/13 IN STATE PLANE ALABAMA EAST ZONE NAD 83 COORDINATES IS CONSISTENT WITH THIS DRAWING.
2. REVISED PRELIMINARY 100-YEAR FLOODPLAIN BOUNDARY PROVIDED BY THE CITY OF HUNTSVILLE ON 06/27/13 IS BASED ON REVISED PRELIMINARY INFORMATION NOT YET FINALIZED BY FEMA, AND IN STATE PLANE ALABAMA EAST ZONE NAD 83 COORDINATES IS CONSISTENT WITH THIS DRAWING.
3. AS REQUIRED, THE CITY OF HUNTSVILLE WILL USE THE MORE RESTRICTIVE LINE WORK (EFFECTIVE OR REVISED PRELIMINARY) WHEN REGULATING DEVELOPMENT WITHIN THE 100-YEAR FLOODPLAIN AND FLOODWAY UNTIL SUCH TIME WHEN THE REVISED PRELIMINARY FLOODPLAIN/WAY LINE WORK AND DATA ARE FINALIZED AND PUBLISHED BY FEMA.
4. REQUIRED FINISHED FLOOR ELEVATION (FFE) AND THE LOWEST ELEVATION OF EQUIPMENT/EXPOSED UTILITIES, MAY BE DETERMINED TO BE HIGHER THAN MINIMUM (MIN.) FFE UPON PERMITTING OF BUILDING CONSTRUCTION BY QUALIFIED CITY OF HUNTSVILLE STAFF. THE REQUIRED BENCH MARK &/OR DATUM FOR SUCH ELEVATIONS WILL ALSO BE DETERMINED UPON PERMITTING OF BUILDING CONSTRUCTION BY QUALIFIED CITY OF HUNTSVILLE STAFF.
5. THERE SHALL BE NO NET FILLING AT ANY LOCATION, PERMANENT OR TEMPORARY, OF ANY KIND (INCLUDING BUT NOT LIMITED TO SOILS, POND CONSTRUCTION, PAVEMENT SECTIONS, AND STOCKPILED MATERIALS) NOR PLACEMENT OR CONSTRUCTION OF STRUCTURES OF ANY KIND (INCLUDING BUT NOT LIMITED TO TEMPORARY CONSTRUCTION TRAILERS, AND SANITARY & STORM SEWER STRUCTURES) ABOVE EXISTING GRADE IN THE EFFECTIVE AND/OR REVISED PRELIMINARY FLOODWAY DURING THE COURSE NOR AS A RESULT OF THIS PROJECT. UPON COMPLETION/FINISH OF CONSTRUCTION THIS WILL HAVE TO BE CERTIFIED IN A LETTER BY THE ENGINEER OF RECORD.
6. 100-YR. FLOODPLAIN AND FLOODWAY BOUNDARIES AND BASE FLOOD ELEVATIONS (BFE), WHICH ARE USED TO DETERMINE MIN./REQUIRED FFE, ARE SUBJECT TO CHANGE BY FEMA, INCLUDING AT THE REQUEST OF OTHERS.

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CITY OF HUNTSVILLE  
HUNTSVILLE, ALABAMA

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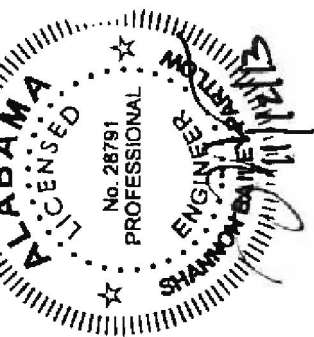
GOOSE CREEK PUMP STATION

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SITE LOCATION, CHARACTER  
AND EXTENT PLAN

Project No.:	07106
Designed By:	AOT
Drawn By:	MB
Checked By:	MDS

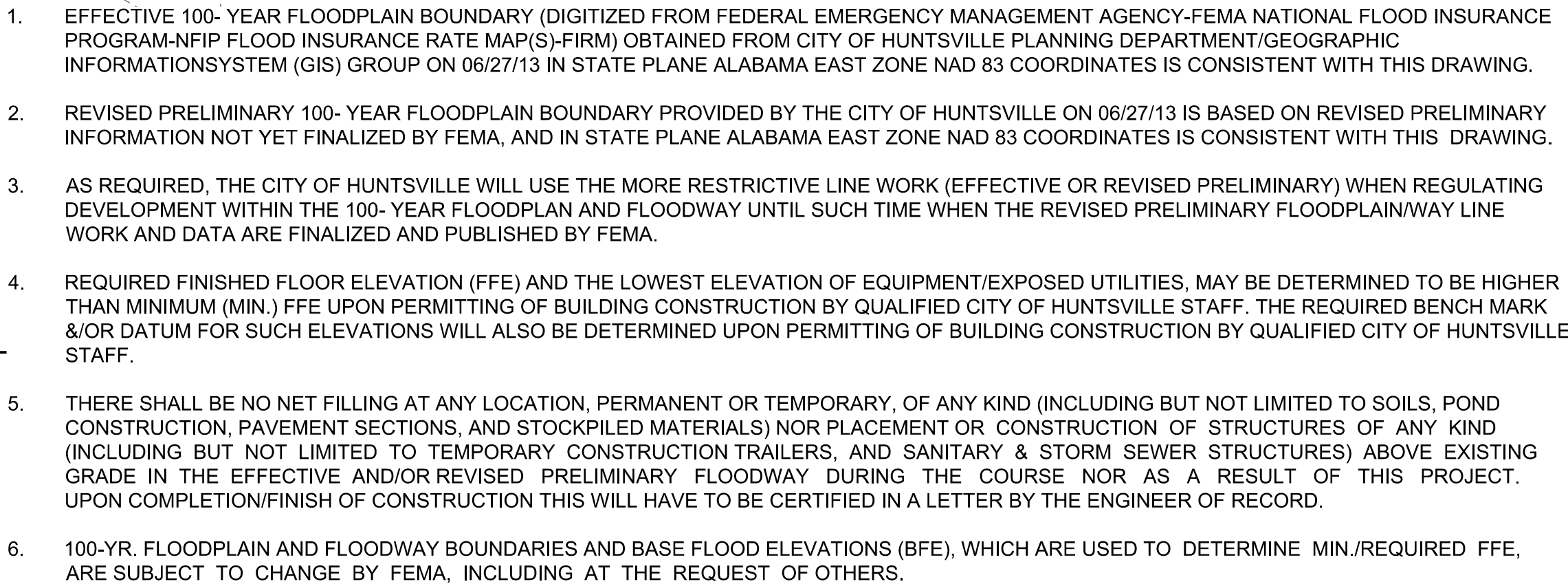
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**TETRA TECH**

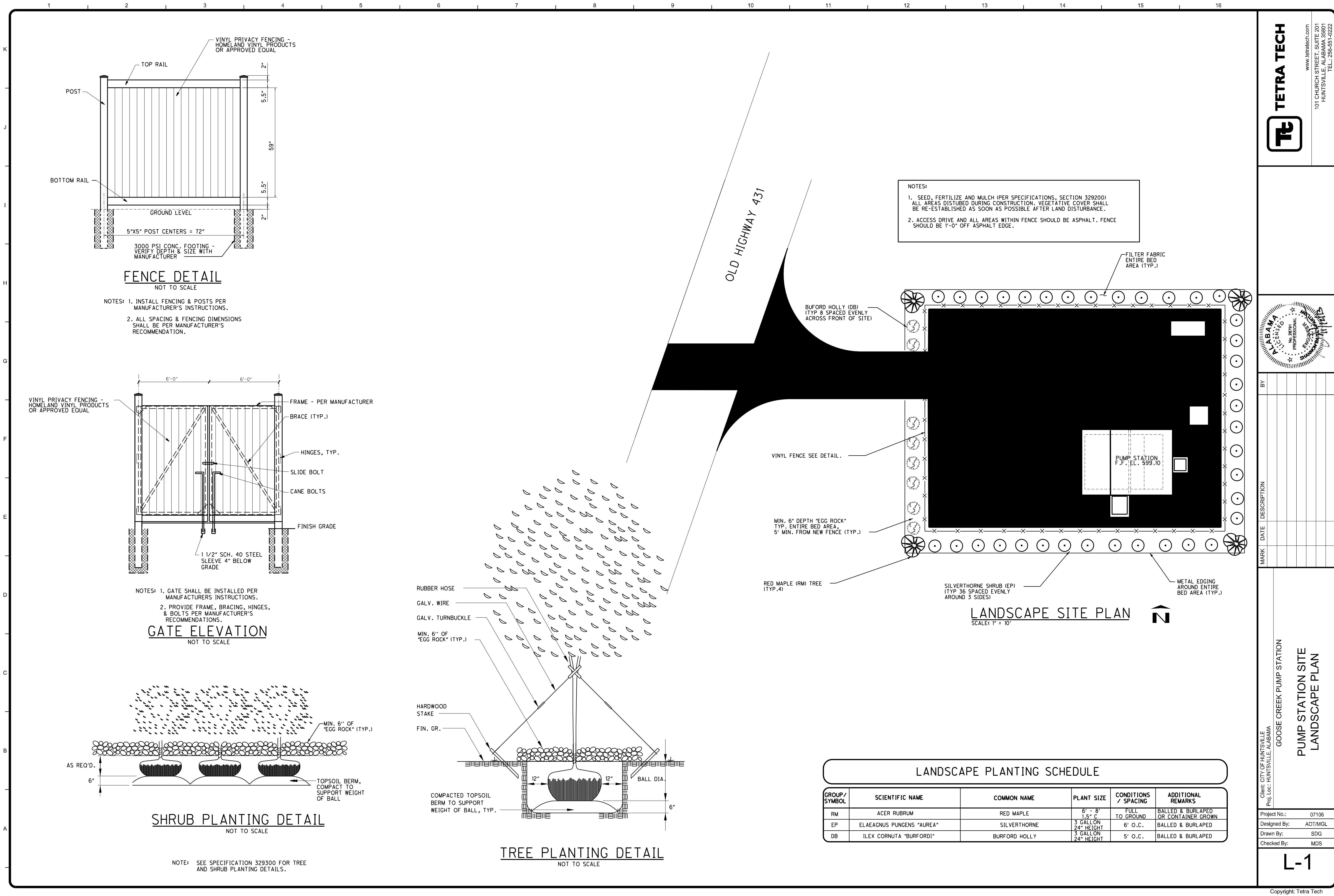
101 CHURCH STREET, SUITE 201  
HUNTSVILLE, ALABAMA 35801  
TEL.: 256-551-0222  
[www.tetratech.com](http://www.tetratech.com)

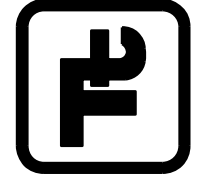




SCALE: 1"=10'







TETRA TECH

www.tetratech.com

101 CHURCH STREET, SUITE 201

HUNTSVILLE, ALABAMA 35801

TEL: 256-551-0222

ALABAMA

REGISTERED PROFESSIONAL

LANDSCAPE ARCHITECT

SHAWN M. HARRIS

10101

BY

DATE

DESCRIPTION

Client: CITY OF HUNTSVILLE

Proj. Loc.: HUNTSVILLE, ALABAMA

GOOSE CREEK PUMP STATION

PUMP STATION SITE

LANDSCAPE PLAN

Project No.:

07106

Designed By:

AOT/MGL

Drawn By:

SDG

Checked By:

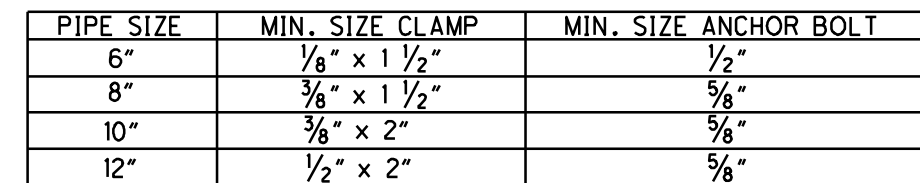
MDS

L-1

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PIPE SIZE	MIN. SIZE CLAMP	MIN. SIZE ANCHOR BOLT
6"	$\frac{1}{8}$ " x $1\frac{1}{2}$ "	$\frac{1}{2}$ "
8"	$\frac{3}{8}$ " x $1\frac{1}{2}$ "	$\frac{5}{8}$ "
10"	$\frac{3}{8}$ " x 2"	$\frac{5}{8}$ "
12"	$\frac{1}{2}$ " x 2"	$\frac{5}{8}$ "

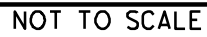
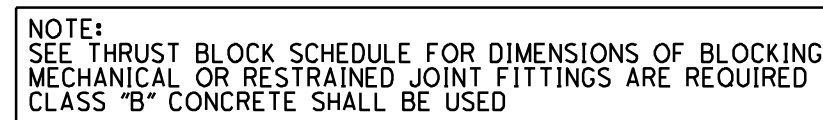
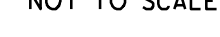
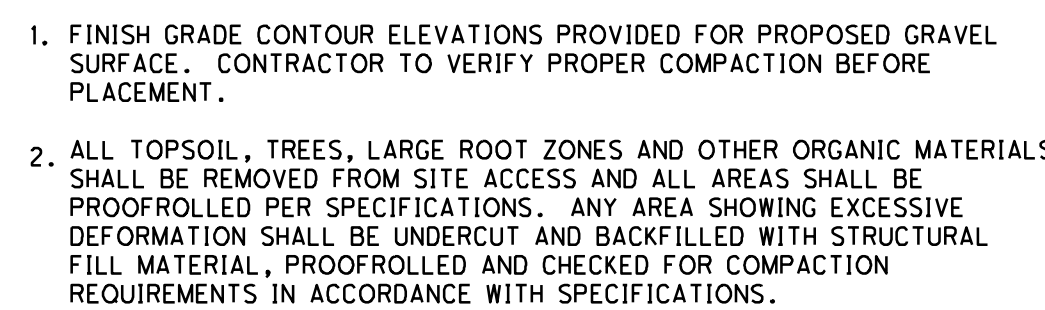


TABLE APPLIES TO DUCTILE IRON FOR FOLLOWING CONDITIONS:

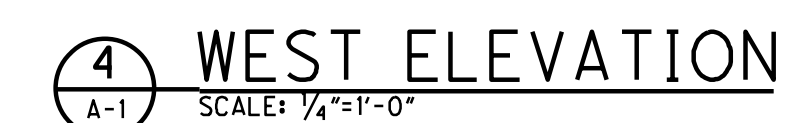
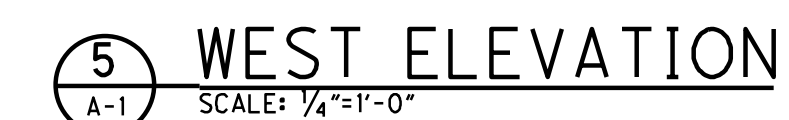
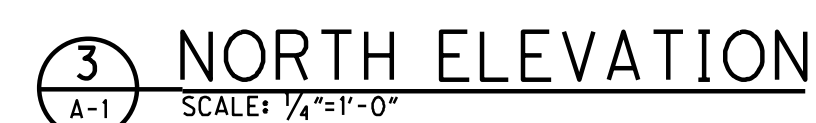
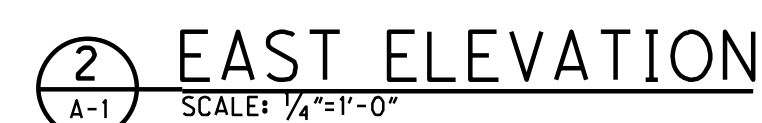
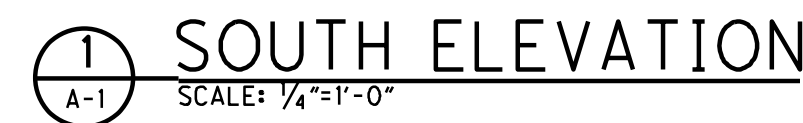
1. TEST PRESSURE: 150 PSIG
2. SOIL TYPE: SP
3. DEPTH OF COVER: 30"
4. SAFETY FACTOR: 1.5
5. COMPACTION: AS SHOWN ON DETAIL DRAWINGS

TABLE APPLIES TO PVC PIPE FOR FOLLOWING CONDITIONS:

1. TEST PRESSURE: 150 PSIG
2. SOIL TYPE: SP
3. DEPTH OF COVER: 30"
4. SAFETY FACTOR: 1.5
5. COMPACTION: AS SHOWN ON DETAIL DRAWINGS







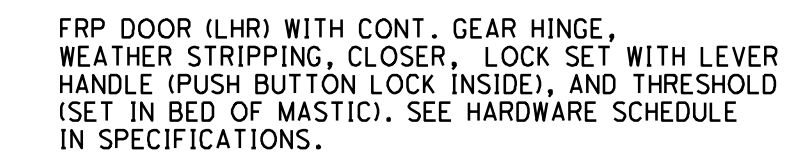
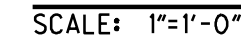
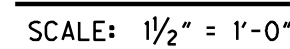




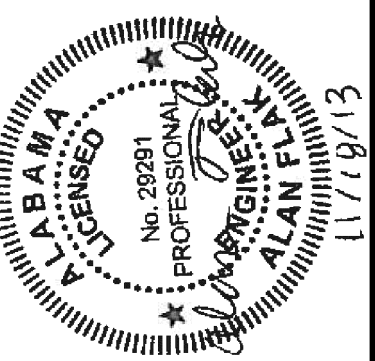
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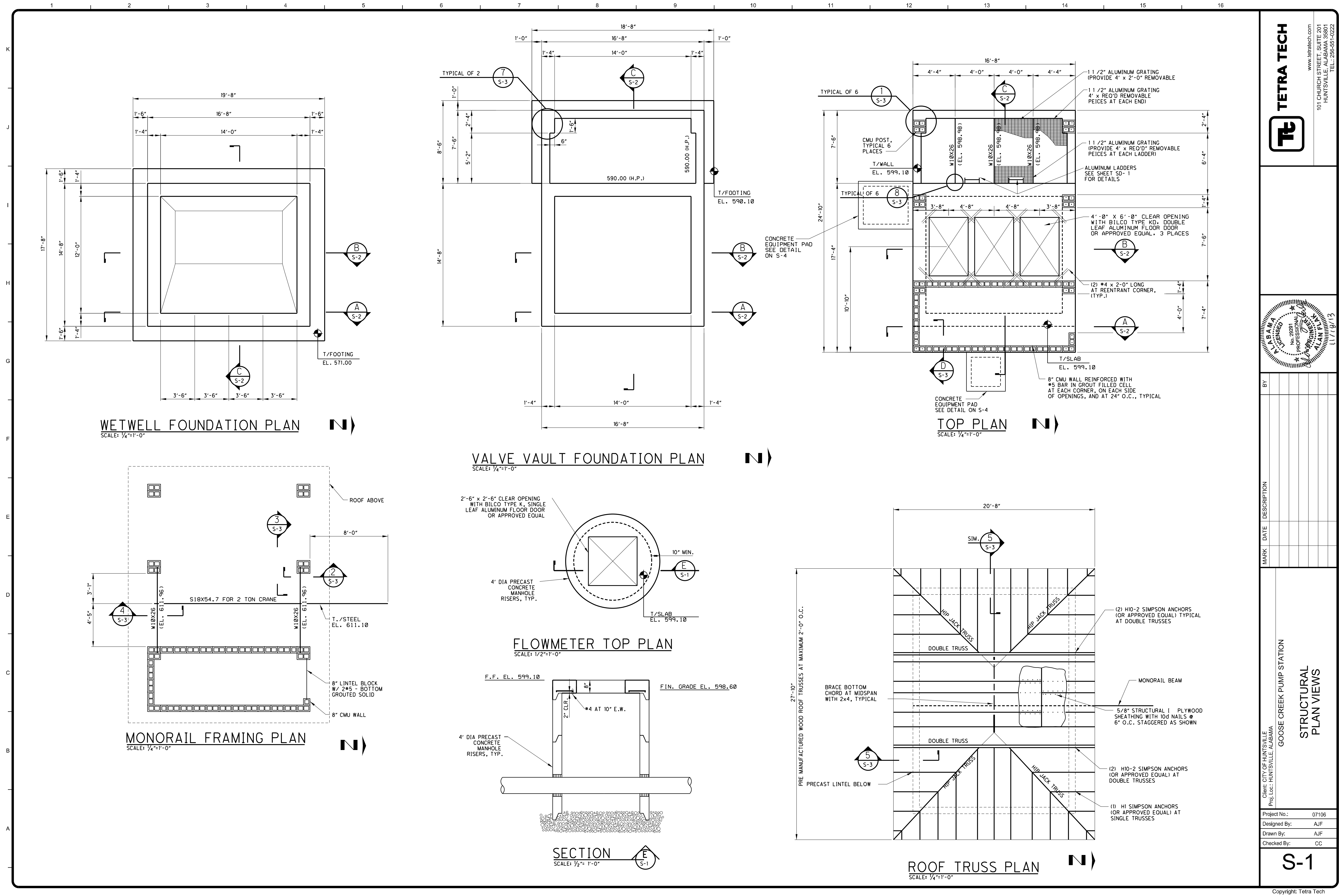
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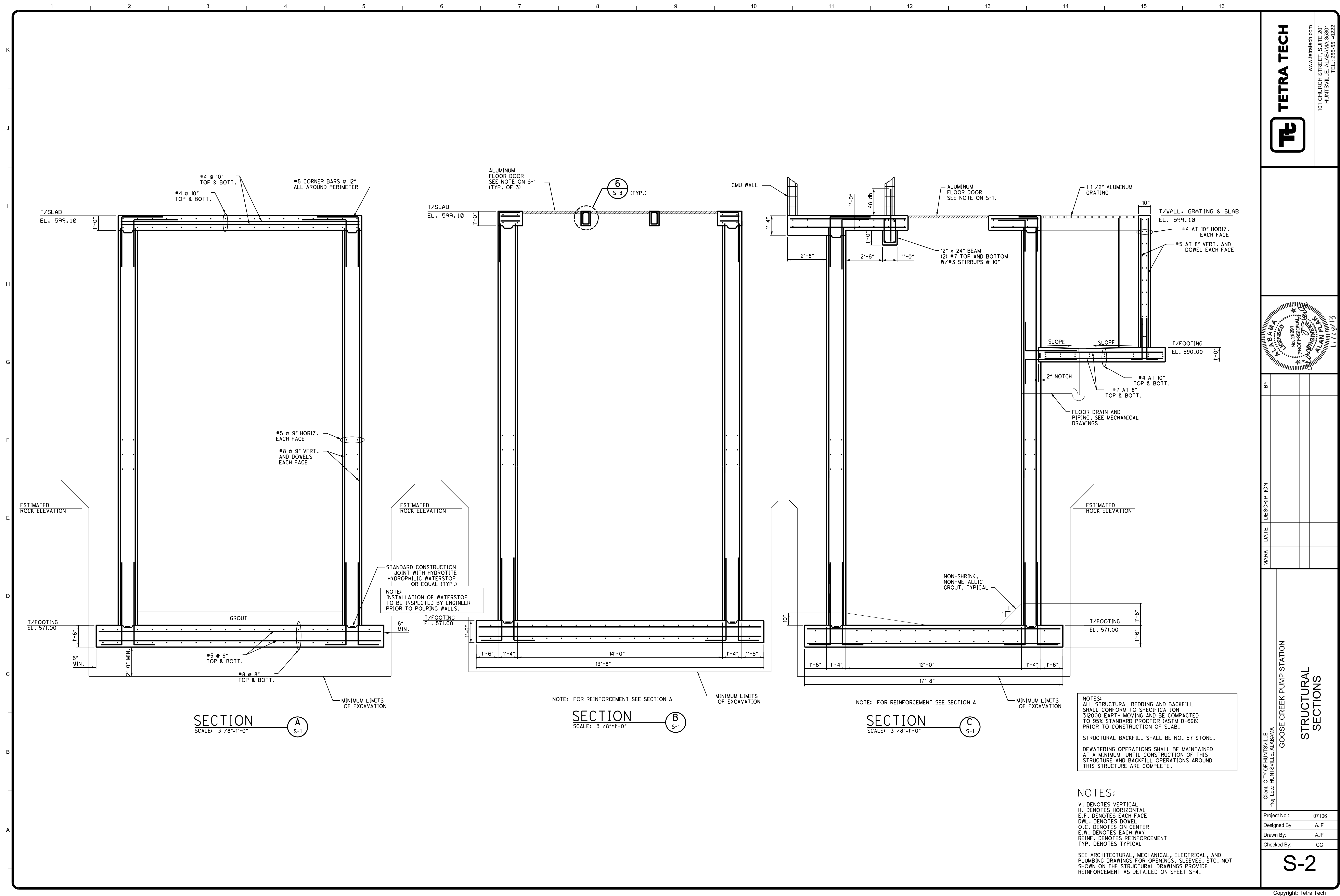


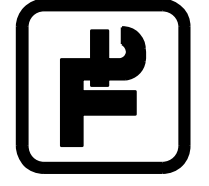
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[illegible]

Project No.:	07106
Designed By:	AJF
Drawn By:	AJF
Checked By:	CC







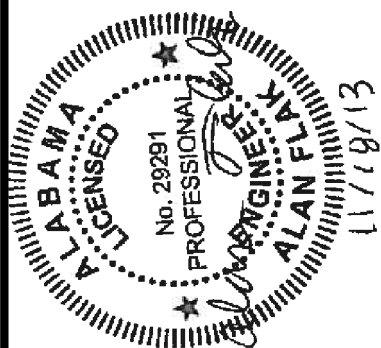
TETRA TECH

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101 CHURCH STREET, SUITE 201

HUNTSVILLE, ALABAMA 35801

TEL: 256-551-0222



BY	
MARK	
DATE	
DESCRIPTION	

Client: CITY OF HUNTSVILLE  
Proj. Loc.: HUNTSVILLE, ALABAMA

GOOSE CREEK PUMP STATION

STRUCTURAL SECTIONS

Project No.:	07106
Designed By:	AJF
Drawn By:	AJF
Checked By:	CC

S-2

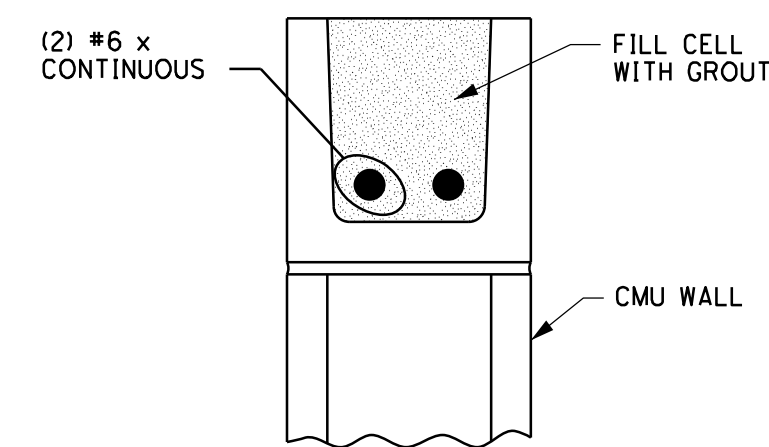
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CONCRETE COLUMN DETAIL

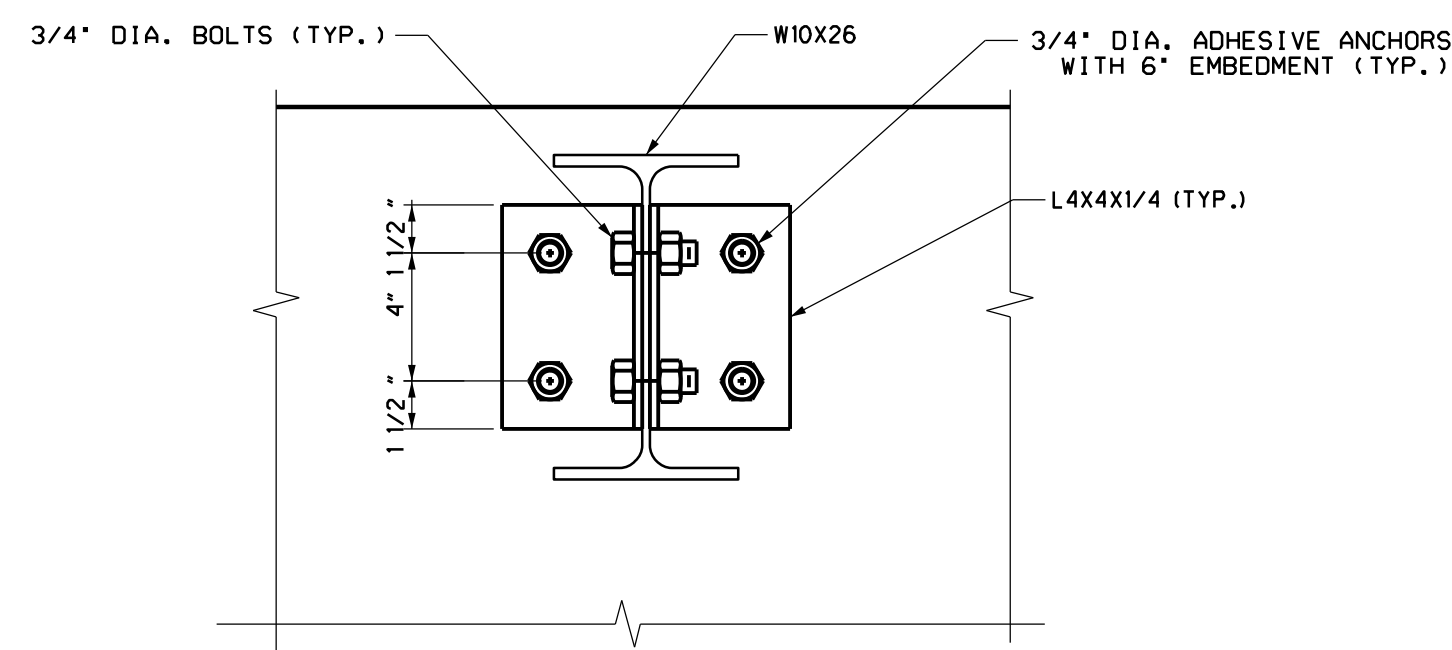
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S-1

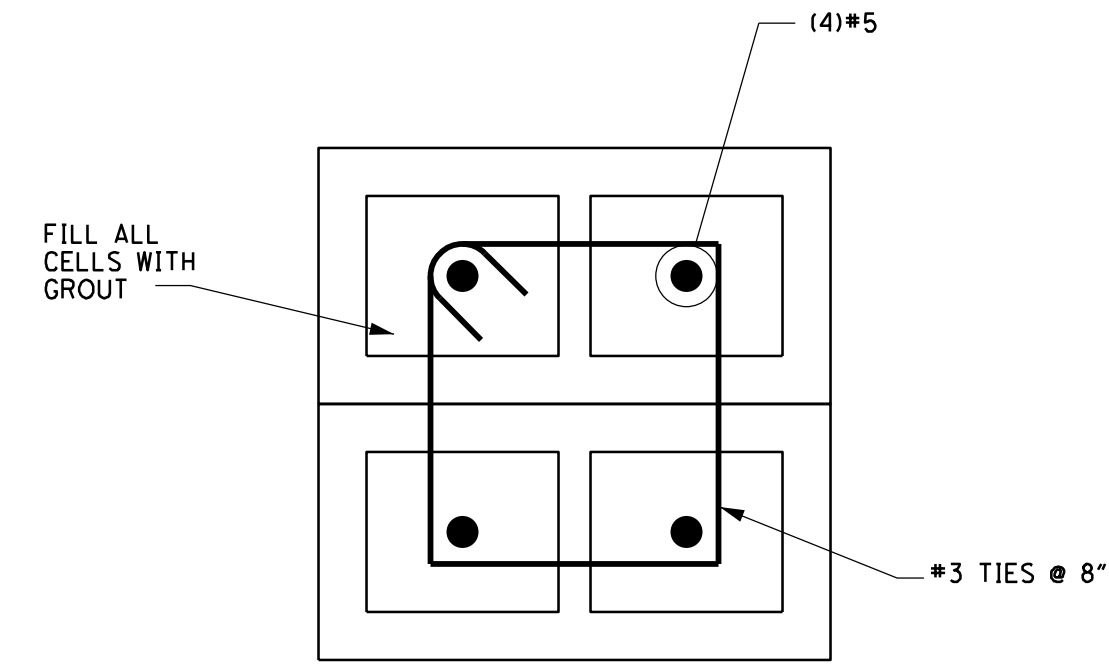


- NOTES:  
1. PROVIDE BOND BEAM FULL PERIMETER OF STRUCTURE.  
2. FILL CELLS AT OPENING JAMBS WITH GROUT.

## BOND BEAM DETAIL



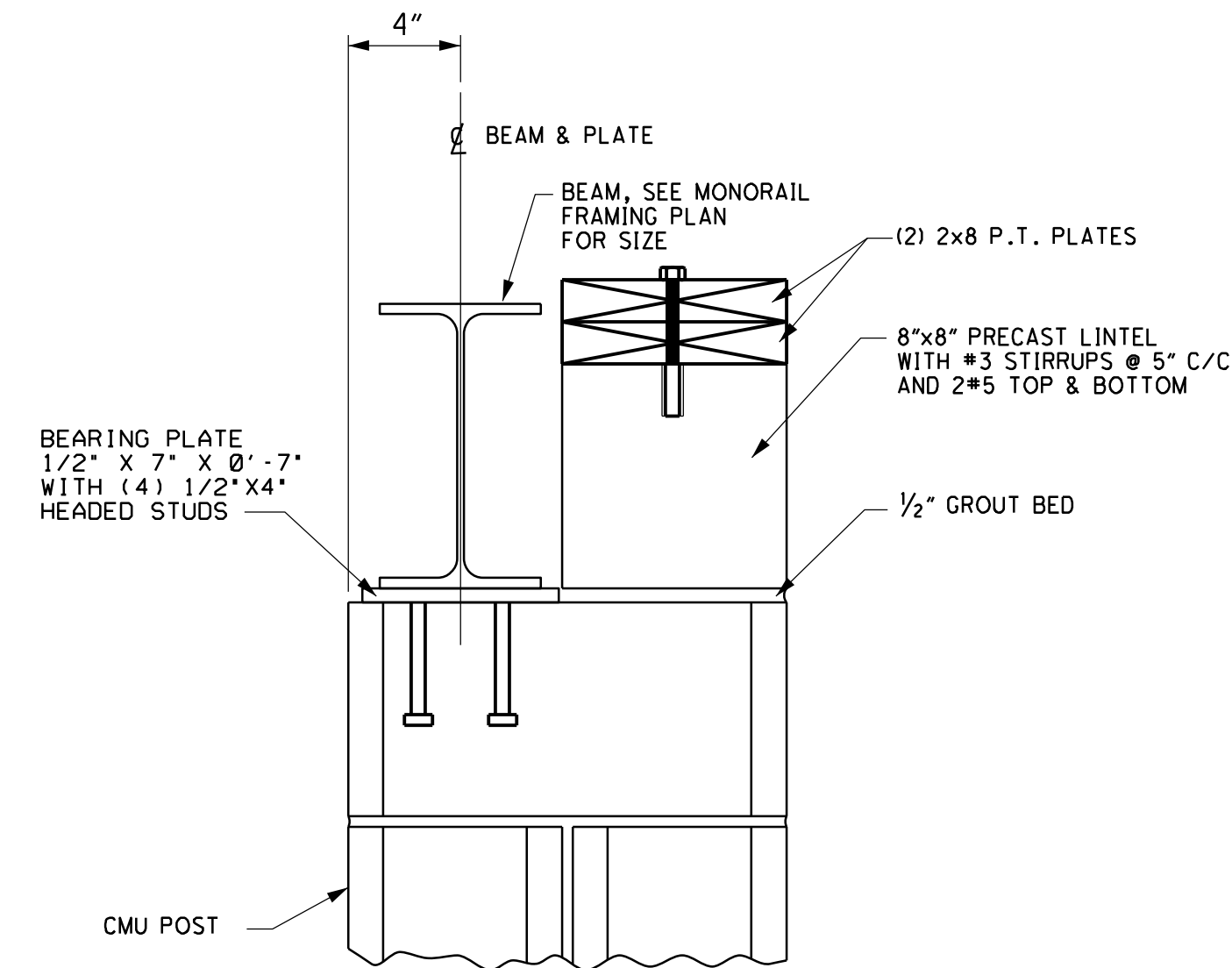
DETAIL 8  
SCALE: 1/2"=1'-0" S-1



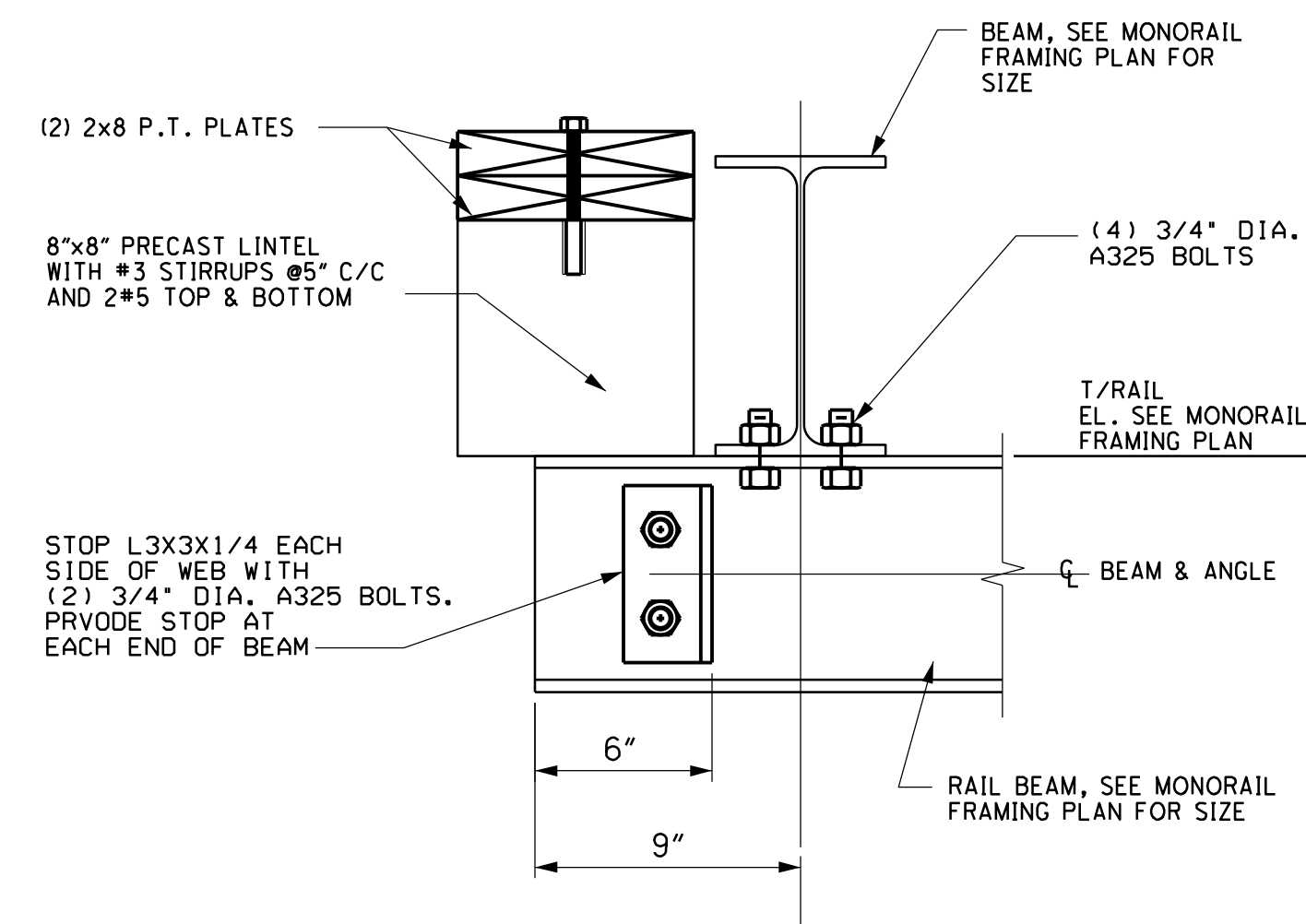
CMU POST DETAIL

SCALE: 1/2"=1'-0"

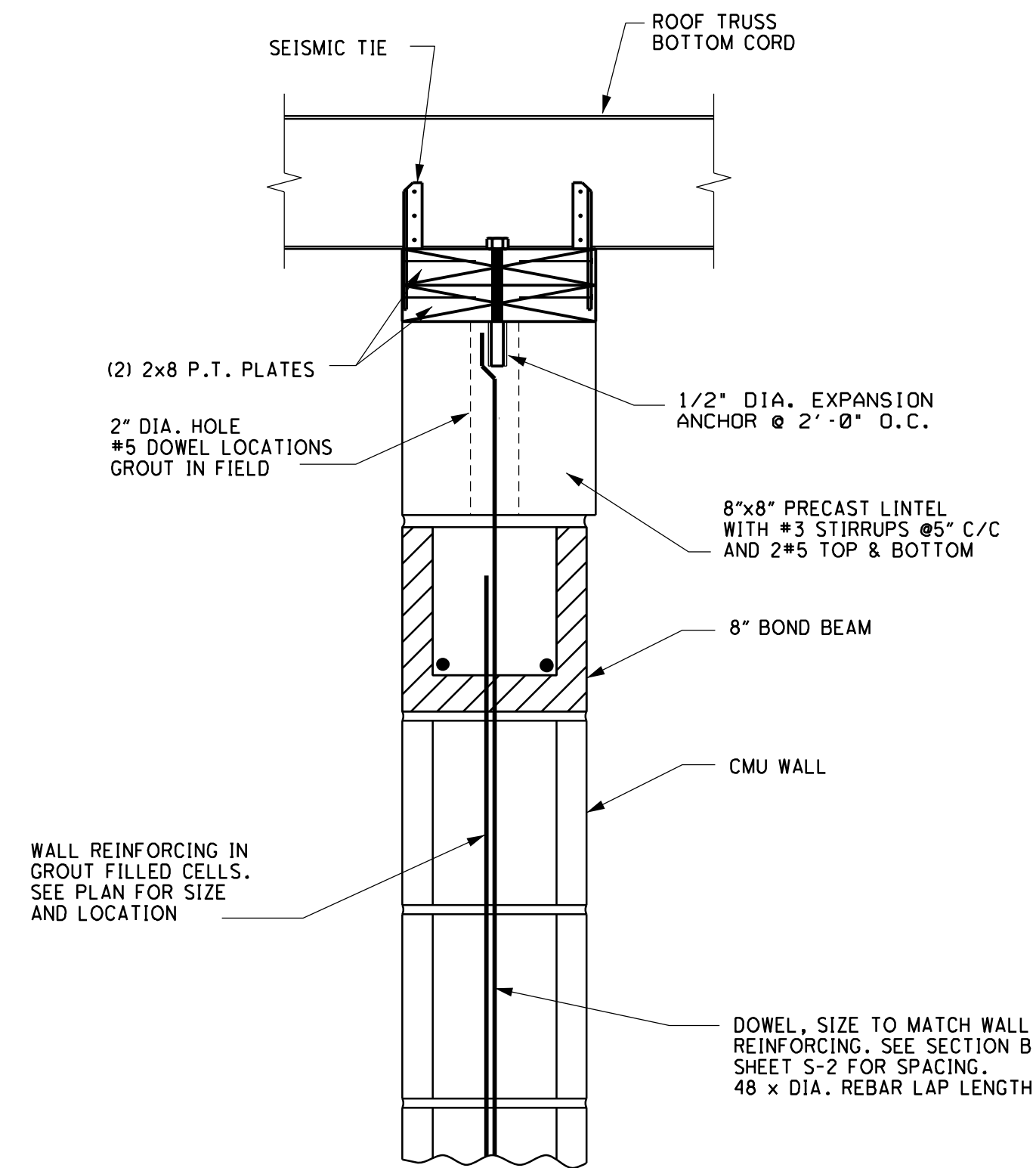
1  
S-1



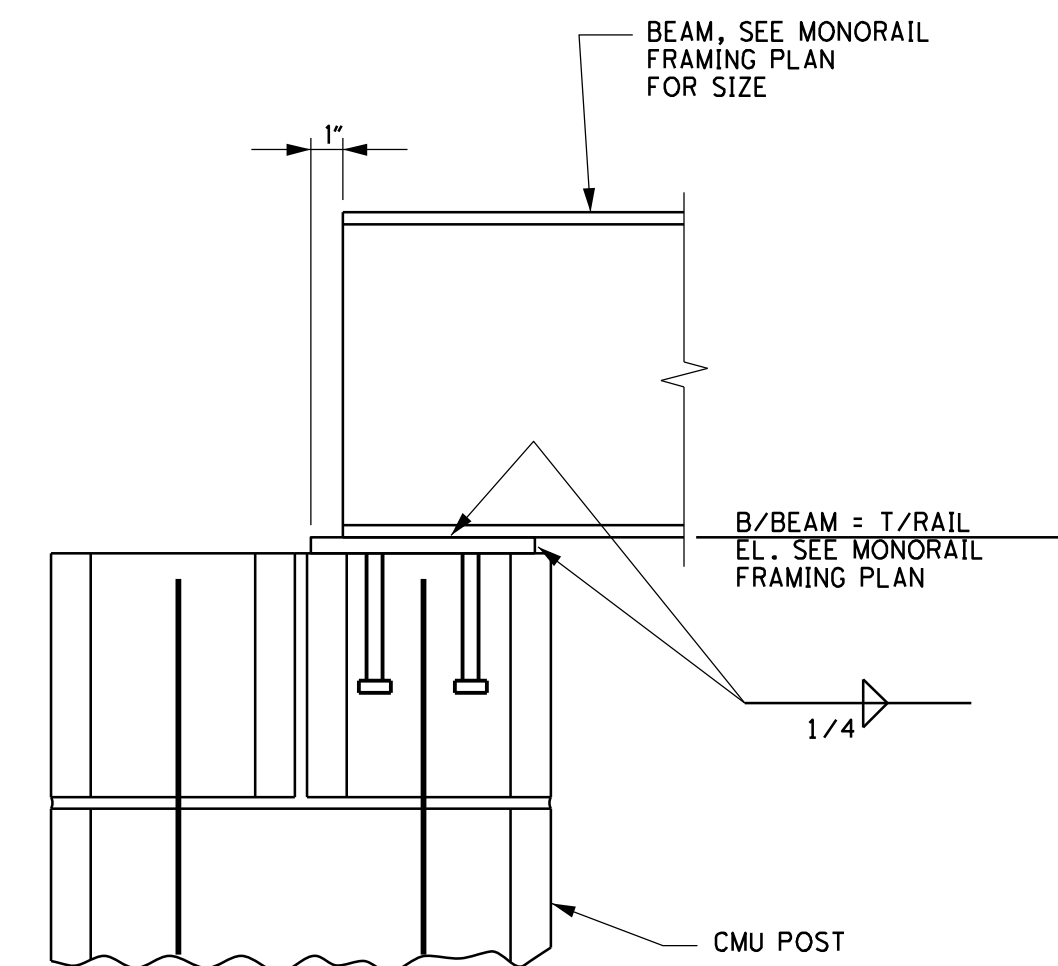
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SCALE: 1 1/2"=1'-0" S-1



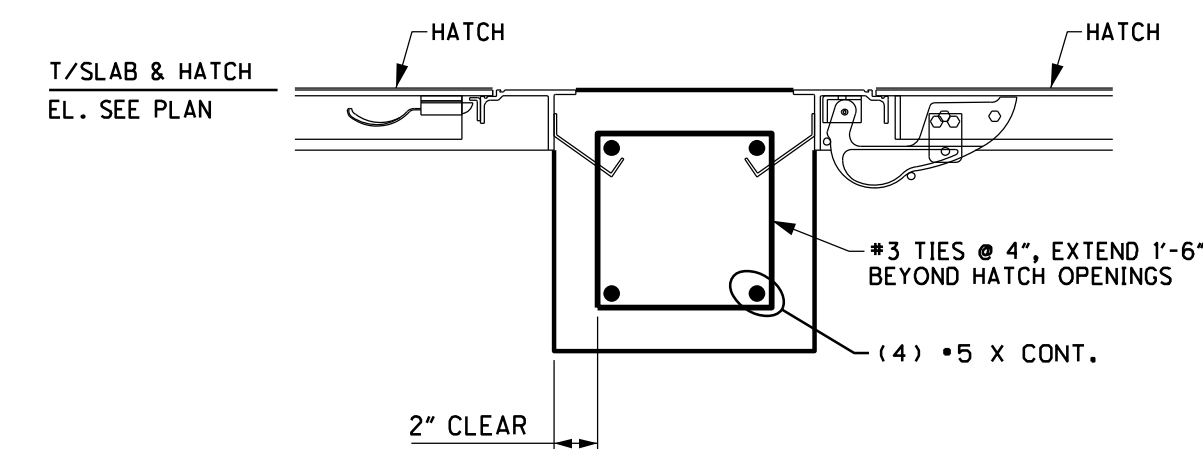
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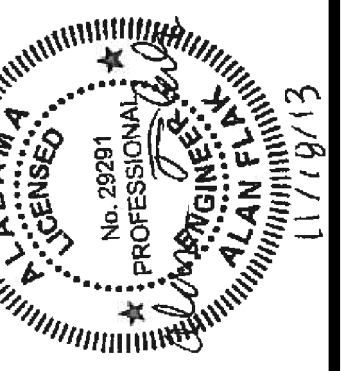
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SECTION 3  
SCALE: 1/2"=1'-0" S-1

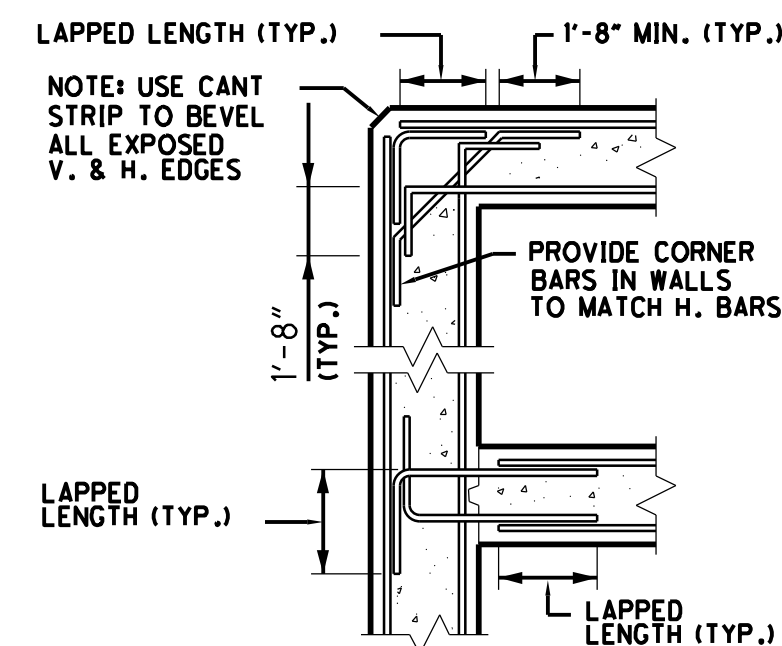


DETAIL 6  
SCALE: 1 1/2"=1'-0" S-2

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GOOSE CREEK PUMP STATION  
STRUCTURAL  
SECTIONS AND DETAILS

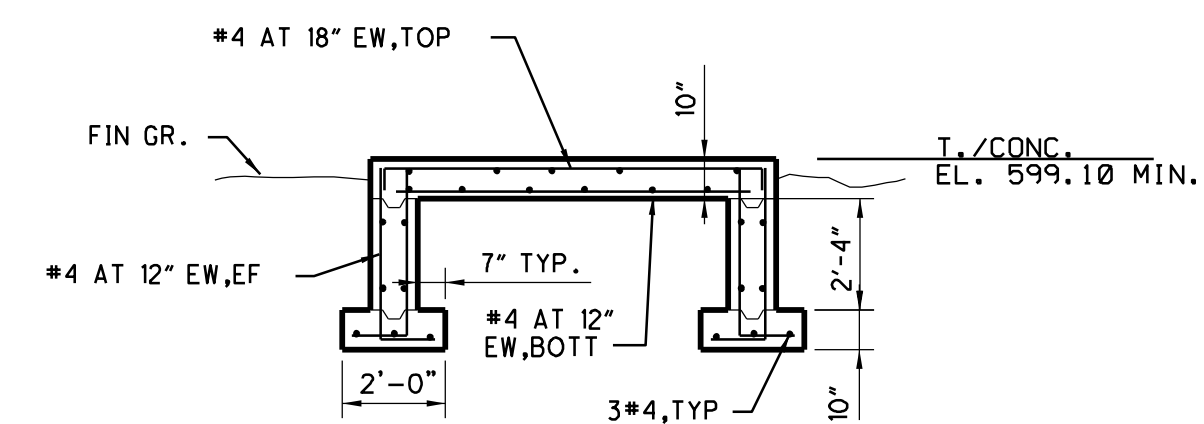
Object No.:	07106
Designed By:	AJF
Drawn By:	AJF
Checked By:	CC



FOR  $f'_c=4000$  PSI CONCRETE WITH 2" (MINIMUM)  
COVER TO MAIN REINFORCING BARS

NOTES:

1. ALL SPLICES SHALL BE CONSIDERED TENSION SPLICES USING LAP LENGTHS IN TABLE ABOVE UNLESS SPECIFICALLY SHOWN OTHERWISE ON THE DRAWINGS.
2. LENGTHS ARE BASED ON LAP CLASS B SPLICES WITH CENTER TO CENTER SPACING OF BARS GREATER THAN 6 DIAMETERS.
- \* 3. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST UNDER THEM.
4. FOR SPLICES OF DIFFERENT SIZE BARS, THE SPLICE DIMENSIONS OF THE SMALLER BAR SHALL BE USED.



NOTE: COORDINATE EXACT PAD REQUIREMENTS  
WITH UTILITY COMPANY.

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BUILDING CODE: . . . . . 2012 INTERNATIONAL BUILDING CODE
DEAD LOADS:
  ROOFS . . . . . 25 PSF (10PSF + TC; 15 PSF - BC)
LIVE LOADS:
  ROOFS . . . . . 5.6PSF
  CONCRETE TOP SLAB AND GRATING. . . . . 20 PSF
  SNOW LOAD:
    100 PSF
  GROUND SNOW LOAD (PG) . . . . . 10 PSF
  FLAT ROOF SNOW LOAD (PF). . . . . 5.6PSF
  SNOW EXPOSURE FACTOR (CE). . . . . 0.8
  SNOW LOAD IMPORTANCE FACTOR. . . . . 1.0
  THERMAL FACTOR. . . . . 1.0
WIND LOAD:
  BASIC WIND SPEED (3-SECOND GUST) . . . . . 90 MPH
  EXPOSURE CATEGORY . . . . .
  IMPORTANCE FACTOR (IW) . . . . . 1.0
  INTERNAL PRESSURE COEFFICIENT (GC) . . . . . +/- 0.18
  COMPONENTS AND CLADDING WIND PRESSURE . . . . . 40 PSF
SEISMIC LOAD:
  SEISMIC OCCUPANCY CATEGORY (TABLE 1604.5) . . . . . II
  SPECTRAL RESPONSE ACCELERATIONS:
    SS . . . . . 0.305
    S1 . . . . . 0.108
  SPECTRAL RESPONSE COEFFICIENTS:
    SDS . . . . . 0.203
    SD1 . . . . . 0.072
  SEISMIC IMPORTANCE FACTOR (IE) . . . . . 1.0
  SEISMIC DESIGN CATEGORY . . . . . C
  SITE CLASS . . . . . D
  BASIC SEISMIC - FORCE - RESISTING SYSTEM:
    ORDINARY REINFORCED MASONRY SHEAR WALLS
    RESISTING MODIFICATIONS COEFFICIENT (R) . . . . . 2
    DESIGN BASE SHEAR:
      ABOVE GROUND STRUCTURE . . . . . 4.1 KIPS
      SEISMIC RESPONSE COEFFICIENT (CS). . . . . 0.102
  ANALYSIS PROCEDURE. . . . . EQUIVALENT LATERAL FORCE
MATERIALS:
  CONCRETE:
    STEEL REINFORCING (ASTM A615 GRADE 60) . . . . .
  MASONRY:
    CMU PRISM TEST. . . . . F'M
  STEEL (ASTM A36 OR A992) . . . . .
  WELDING GALVANIZED STEEL. . . . . 60 KSI (E60 ELECTRODE)
  WELDING OTHER STEEL . . . . . 70 KSI (E70 ELECTRODE)
  BOLTS 3/4" DIA. MIN. ASTM A325) . . . . .

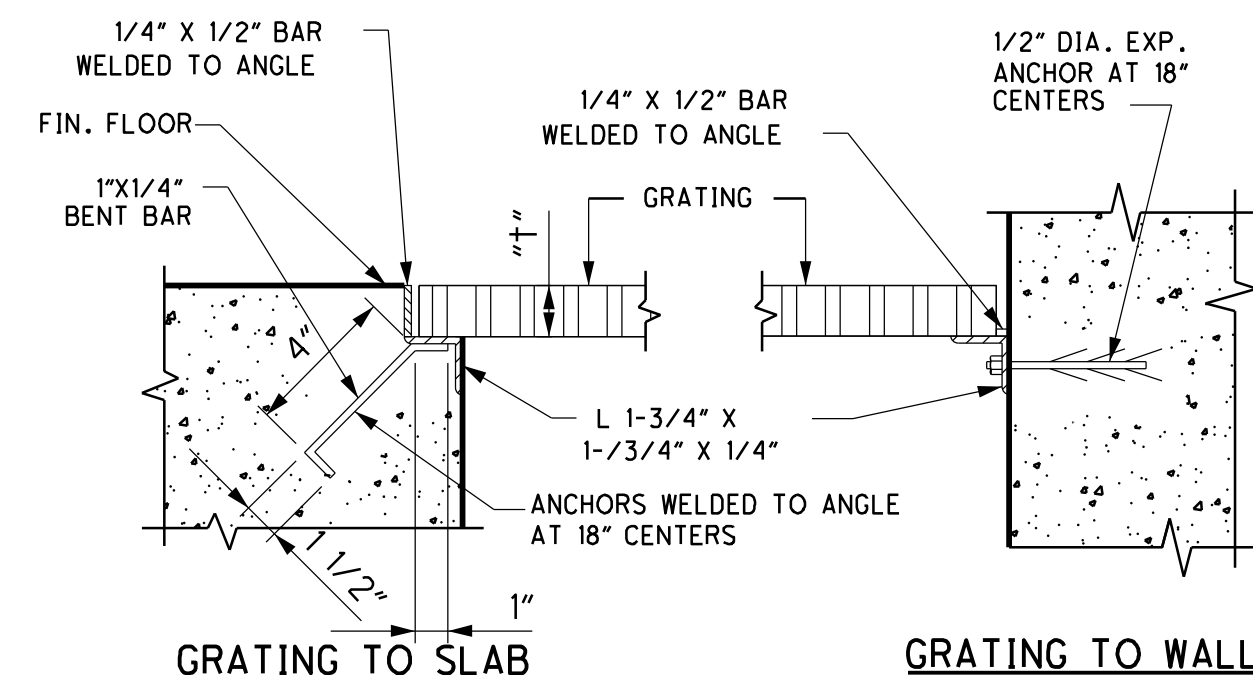
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## GENERAL NOTES

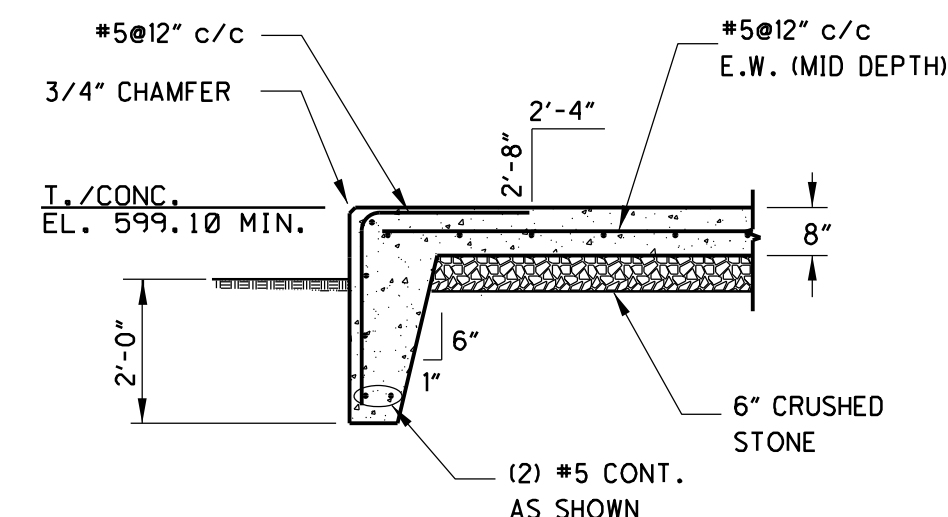
1. ALL CONSTRUCTION SHALL COMPLY FULLY WITH THE APPLICABLE PROVISIONS OF OSHA, THE CITY OF HUNTSVILLE, AND OTHER APPLICABLE STANDARDS.
2. FIELD-VERIFY SITE CONDITIONS PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES.
3. IF BASE SLAB ELEVATION SHOWN OCCURS IN A DISTURBED, UNSTABLE, OR UNSUITABLE SOIL, THE ENGINEER SHALL BE NOTIFIED
4. ALL STRUCTURAL OPENINGS AROUND OR AFFECTED BY MECHANICAL, ELECTRICAL, OR PLUMBING EQUIPMENT SHALL BE VERIFIED WITH EQUIPMENT PURCHASED BEFORE PROCEEDING WITH FABRICATION AND CONSTRUCTION.
5. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR OPENINGS, SLEEVES, ETC. NOT SHOWN ON THE STRUCTURAL DRAWINGS. PROVIDE FRAMING OR REINFORCING.
6. ALL WALLS SHALL BE CONSTRUCTED IN OPERATIONS UNTIL THE CONCRETE WALLS HAVE REACHED THEIR 28 DAY DESIGN STRENGTH, UNLESS NOES OTHERWISE OR APPROVED BY THE ENGINEER.
7. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4" U.N.O.
8. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING AND OTHER MEASURES NECESSARY TO PROTECT THE STRUCTURE AND PERSONNEL DURING CONSTRUCTION.
9. ANY OLD JOINTS FORMED CONTRACTOR IN THE STRUCTURE SHALL HAVE WATERSTOP INSTALLED IN THEM UNLESS NOTED OTHERWISE.

## CODES

1. ALL CONCRETE CONSTRUCTION SHALL COMPLY WITH ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE."
2. CONCRETE DESIGN COMPLIES WITH ACI 318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE."
3. CONCRETE DESIGN COMPLIES WITH ACI 350, "CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES."
4. MASONRY DESIGN COMPLIES WITH ACI 530, "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" AND ACI 530.1 "SPECIFICATIONS FOR MASONRY STRUCTURES."
5. STRUCTURAL STEEL DESIGN IS PER THE CURRENT EDITION OF A.I.S.C.



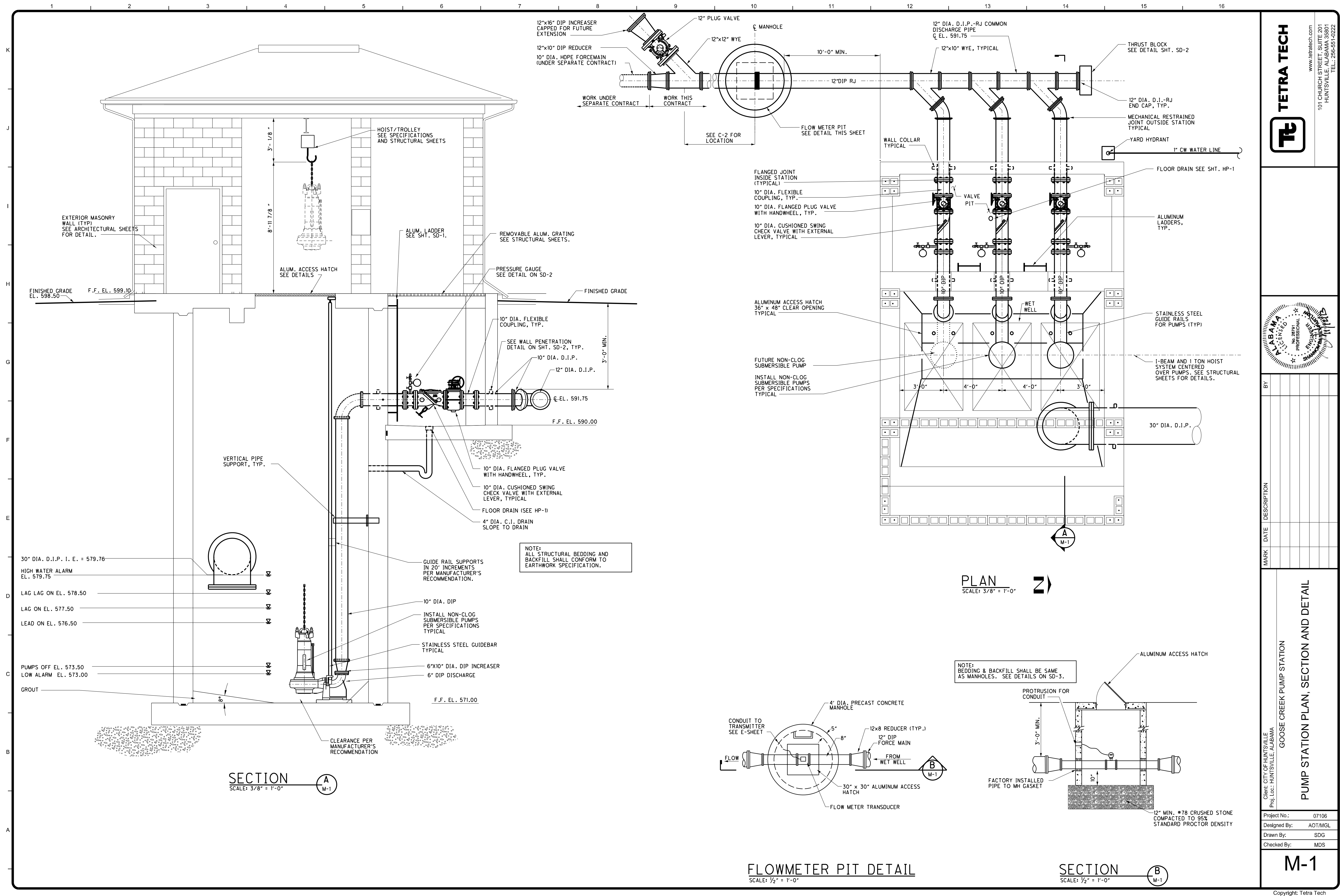
NOT TO SCALE



CONCRETE EQUIPMENT AND GENERATOR PAD  
NOT TO SCALE

NOTE: PAD DIMENSIONS TO BE DETERMINED BY EQUIPMENT MANUFACTURER.

[illegible]









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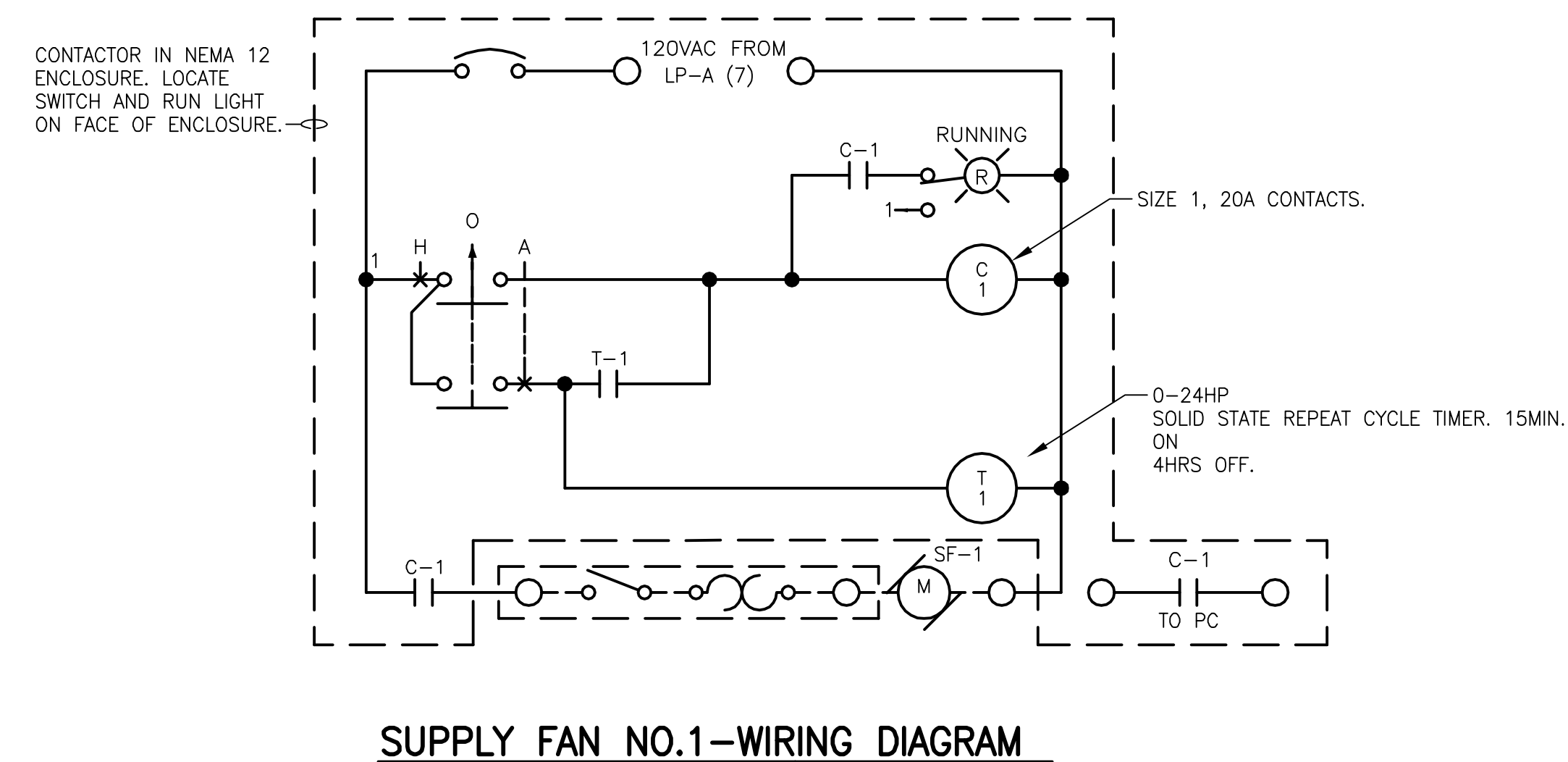
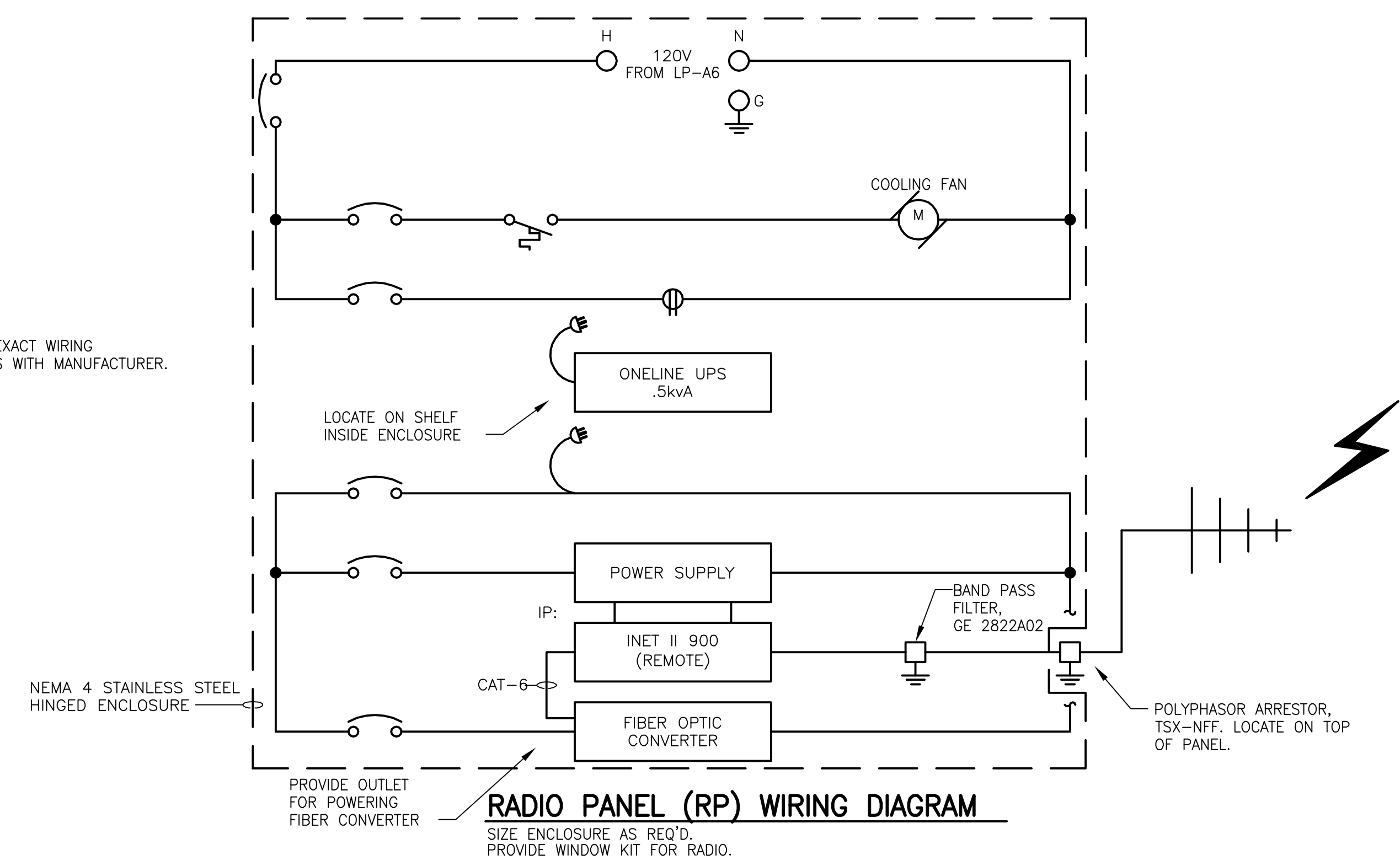
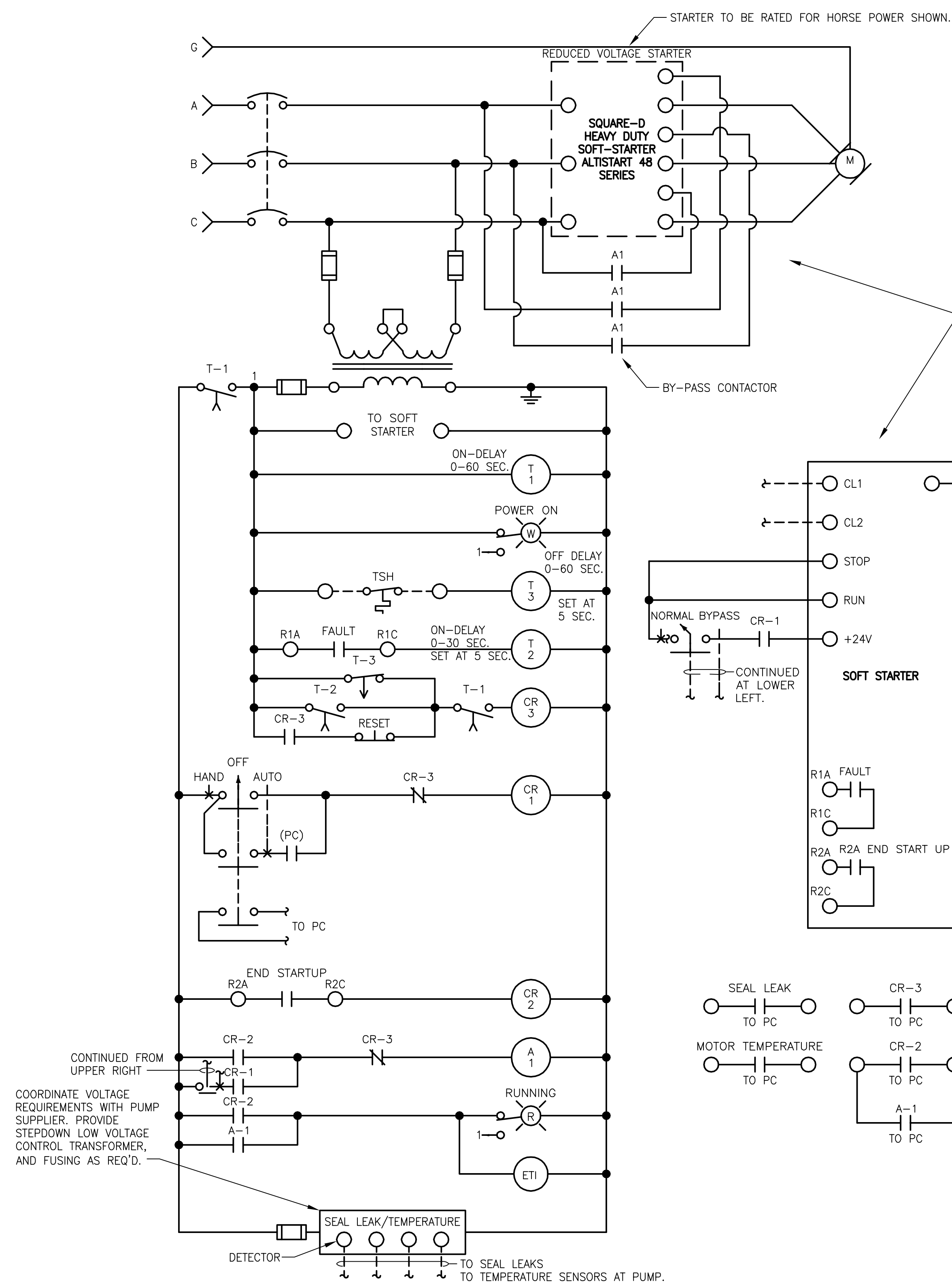






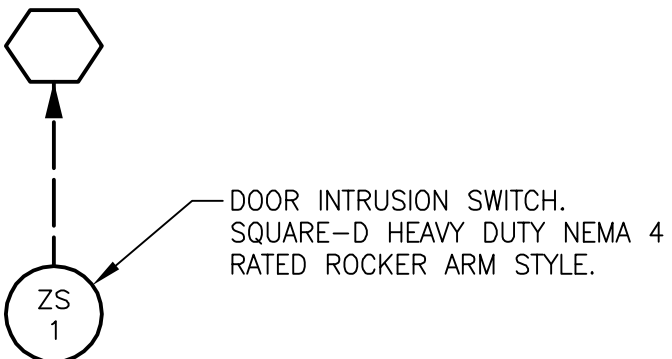












**Tt** **TETRA TECH**

[www.tetratech.com](http://www.tetratech.com)

101 CHURCH STREET, SUITE 201  
HUNTSVILLE, ALABAMA 35801  
TEL.: 256-551-0222

[illegible]

Client: CITY OF HUNTSVILLE  
 Job Loc.: HUNTSVILLE, ALABAMA  
 GOOSE CREEK PUMP STATION  
 HUNTSVILLE, ALABAMA

# ELECTRICAL PROCESS FLOW DIAGRAM SYSTEM CONFIGURATION DIAGRAM

Project No.:	07106
Designed By:	GCJ
Drawn By:	JLS
Checked By:	

# E-7







